**Nuclear Data Section**

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**Memo CP-D/1011 (Rev.)**

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**To:** Distribution

**From:** N. Otsuka, N. Soppera

**Subject:** **Revisions of EXFOR Formats Manual**

**Page 6.2 – Nuclide and compound symbol other than an elemental symbol**

The current manual mentions the symbol S in the Z-S-A-X format is defined in Dictionary 8, but we also use particle symbols (e.g., AP for anti-proton). We propose the addition of “or particle” and deletion of “(Dictionary 8)” as follows:

**Coding of nuclides and compounds**

Nuclides appear in the coding of many keywords. The general code format is Z-S-A-X, where:

*Z* is the charge number; up to 3 digits, no leading zeros

*S* is the element (Dictionary 8) or particle symbol; 1 or 2 characters ~~(Dictionary 8)~~(\* is used for super-heavy elements that do not have element symbols)

**…**

Valid nuclide codes are given in Dictionary 227 (see EXFOR/CINDA Dictionary Manual).

**Page 7.11 – Trailing comma in code field of ERR-ANALYS**

The current manual allows trailing comma in the coded information of ERR-ANALYS except for the correlation property field like (ERR-1,10,). To prevent it, we propose (1) addition of a sentence “The absence of any field must be indicated by including the separating comma; trailing commas are not included.” before introduction of the heading field, and also deletion of a similar sentence in the description of the correlation property field.

**ERR-ANALYS**

…

2. The coded information is of the form: (heading, minimum value, maximum value, correlation property) free text. The absence of any field must be indicated by including the separating comma; trailing commas are not included.

Heading Field.

…

Maximum Value Field

…

Correlation Property Field Contains one of the following correlation property flags: U: Uncorrelated F: Fully correlated P: Partially correlated C: Correlated (when information is insufficient to determine F or P) This field is optional. It may be given only when authors give the proper information in the publication. ~~If this field is not given, the trailing comma is omitted.~~

**Page 7.2 – Presence of keywords**

The current manual mentions

* REACTION
* One of METHOD, FACILITY, ANALYSIS or DETECTOR

must be present in either subentry 001 or in all other subentries. We do not expect these keywords when supplemental information (e.g., a large table of resolution/response function or incident particle spectrum) is given in the subentry. We propose to add an exception like “except when SUPPL-INF is present” for these keywords. We also have to add the new keyword SUPPL-INF in this table.

|  |  |  |
| --- | --- | --- |
| **Keyword** | **Presence of keyword is obligatory** | **Obligatory with data heading** |
| … | … | … |
| Data specification  REACTION  RESULT | always except when SUPPL-INF is present  when a code exists |  |
| … | … | … |
| Physics  INC-SOURCE  INC-SPECT  SAMPLE  SUPPL-INF |  |  |
| METHOD  FACILITY  ANALYSIS  DETECTOR | one of these is obligatory except when SUPPL-INF is present |  |
| … | … | … |

We also need to add “except when SUPPL-INF is present” after “At least one of the keywords METHOD, FACILITY, DETECTOR, or ANALYSIS must be present with coded information” in the descriptions of METHOD, FACILITY, ANALYSIS and DETECTOR in Chapter 7.

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